



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

appellants:

Sarvar PATEL et al.

Appl. No.:

10/786,454

Filing Date:

February 26, 2004

Art Unit:

2439

Examiner:

R. Tolentino

Title:

METHOD OF GENERATING A CRYPTOSYNC

Atty. Dkt. No.:

29250-002013/us

Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22314 Mail Stop Appeal Brief Date: March 5, 2012 (Monday) (March 3 being a Saturday)

## APPELLANTS' REPLY BRIEF UNDER 37 C.F.R. § 41.41

In response to the Examiner's Answer of January 3, 2012 and in accordance with the provisions of 37 C.F.R. § 41.41, Appellants submit the following Reply Brief.

APPELLANTS' REPLY BRIEF UNDER 37 C.F.R. § 41.41 Atty. Dkt. No. 29250-002013/US U.S. Appl. No. 10/786,454

## I. STATUS OF CLAIMS

Claims 1-24 are pending in the present application, with claims 1 and 24 being independent.

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II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Appellants seek the Board's review of the rejection of claim 5 under 35

U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out

and distinctly claim the subject matter which applicant regards as the invention.1

B. Appellants seek the Board's review of the rejection of claims 1, 4, 6, 7,

11, and 12 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent

Publication 2005/0086468 to Meandzija et al. ("Meandzija") in view of U.S. Patent

Publication 2004/0078334 to Malcolm et al. ("Malcolm").

C. Appellants seek the Board's review of the rejection of claims 2 and 3

under 35 U.S.C. §103(a) as being unpatentable over Meandzija in view of Malcolm in

further view of U.S. Patent Publication 2005/0172116 to Burch et al. ("Burch").

D. Appellants seek the Board's review of the rejection of claim 5 under 35

U.S.C. §103(a) as being unpatentable over Meandzija in view of Malcolm in further

view of U.S. Patent Publication 2005/0177715 to Somin et al. ("Somin").

E. Appellants seek the Board's review of the rejection of claims 8-10 and 13-

23 under 35 U.S.C. §103(a) as being unpatentable over Meandzija in view of Malcolm

in further view of U.S. Patent 6,980,658 to Rezaiifar et al. ("Rezaiifar").

<sup>1</sup> Appellants note the indication on page 12 of the Examiner's Answer that the rejection of claim 5 under 35 U.S.C. §

112, second paragraph has been withdrawn. Accordingly, Appellants present no further arguments with respect to

this rejection.

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F. Appellants seek the Board's review of the rejection of claim 24 under 35

U.S.C. §103(a) as being unpatentable over Meandzija in view of Malcolm and Burch.

III. ARGUMENT

In addition to the arguments articulated in the Appeal Brief of November 3,

2011 (hereinafter, "the Appeal Brief"), Appellants would like to clarify the following

points. However, it should be understood that any portion of the January 3, 2012

Examiner's Answer (hereinafter, "the Examiner's Answer") that is not specifically

addressed herein is not a concession as to the propriety of that portion. Rather, the

absence of a specific reply to such a portion is merely because clarification was not

needed in view of the arguments already articulated in the Appeal Brief.

A. THE INTERPRETATION IN THE EXAMINER'S ANSWER OF THE TERM

CRYPTOSYNC RECITED IN CLAIM 1 IS INCONSISTENT WITH APPELLANTS'

**SPECIFICATION** 

Appellants respectfully submit, during patent examination, the pending claims

must be "given their broadest reasonable interpretation consistent with the

specification."2 The broadest reasonable construction must be given "in light of the

specification as it would be interpreted by one of ordinary skill in the art."3

The Examiner's Answer asserts that a cryptosync in the "broadest

interpretation" is anything from a counter to an encryption key of a digital certificate

<sup>2</sup> Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005).

<sup>3</sup> In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

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or a number of other pieces of information.4 This assertion was not present in the

June 3, 2011 Office Action (hereinafter, "the Office Action"). Further, Appellants

respectfully submit the interpretation used in the Examiner's Answer is not the proper

interpretation. To the contrary, as is discussed above, proper interpretation is the

broadest reasonable interpretation in light of the specification as it would be interpreted

by one of ordinary skill in the art.

Appellants' specification explains that a cryptosync is an element with a varying

value. Appellants' specification further describes, as an example use of the cryptosync,

input of the crytptosync into an encryption algorithm to generate a mask for use in

encryption. The varying value of the cryptosync ensures that the result of encryption

also varies, thus preventing replay attacks.5

Appellants respectfully submit that the Examiner has provided absolutely no

support for the assertion that a person of ordinary skill in the art, in light of

Appellants' specification, would determine the broadest reasonable interpretation of

the recited term "cryptosync" to cover any piece of cryptographic information including

an encryption key, a digital certificate or a number of other pieces of information as is

asserted by the Examiner's Answer.

Further, Appellants respectfully submit a person of ordinary skill in the art, in

light of at least the above-referenced portion of Appellants' specification, would

understand the term cryptosync to denote an element that changes over time.

Appellants respectfully submit this understanding is further demonstrated by one of

the references of record, Rezaiifar.6

<sup>4</sup> Examiner's Answer at p 12, 1. 5-8.

<sup>5</sup> Spec. at p. 2, l. 3-17.

<sup>6</sup> Rezaiifar at column 4, lines 50-60 describes the variable nature of a cryptosync.

Accordingly, Appellants respectfully submit the interpretation of the recited term cryptosync articulated in the Examiner's Answer is improper. Further, Appellants respectfully submit it is this improper interpretation which the Examiner's Answer uses as support for the assertion that digital certificates of Meandzija and Malcolm teach the first and second cryptosyncs recited in claim 1. Accordingly, Appellants respectfully submit the assertion that any of the session certificate of Meandzija, or the root or derived certificates of Malcolm teach either of the first and second cryptosyncs recited in claim 1 is incorrect, at least because digital certificates do not vary, which a person of ordinary skill in the art would require of a cryptosync. Specifically, Appellants respectfully submit the Examiner's Answer has provided no support for the assertion that a person of ordinary skill in the art would determine the broadest reasonable interpretation of the term "cryptosync", in light of Appellants' specification, to include a digital certificate. Accordingly, Appellants respectfully submit the "first cryptosync" and "second cryptosync" recited in claim 1 have not been identified in the applied art by the Office Action or the Examiner's Answer..

For at least the reasons discussed above, Appellants respectfully submit neither the Office Action nor the Examiner's Answer has established that each of the limitations of claim 1 are taught or otherwise rendered obvious by the applied art as is required to support a rejection under §103.

B. THE EXAMINER'S ANSWER DOES NOT ACCOUNT FOR THE LACK OF A

REASONING HAVING A RATIONAL UNDERPINNING SUPPORTING THE LEGAL

CONCLUSION OF OBVIOUSNESS WITH RESPECT TO CLAIM 1.

In section VII(B)(3) of the Appeal Brief, Appellants argued that the Examiner

had provided no reasoning having a rational underpinning supporting the legal

conclusion of obvious with respect to claim 1, as is required to support an

obviousness rejection according to KSR7. Specifically, on page 22 of the Appeal Brief,

Appellants argued that benefits cited by the Office Action and discussed in paragraph

[0028] of Malcolm were insufficient to motivate one of ordinary skill in the art to

combine the teachings of Meandzija and Malcolm as the Office Action asserts, because

the Office Action identified nothing in Malcolm attributing the benefits discussed in

paragraph [0028] of Malcolm specifically to the use of a root certificate and a digital

certificate derived therefrom as discussed in paragraph [0145] of Malcolm.

In response to the arguments above, page 15, line 6 to page 16, line 4 of the

Examiner's Answer reference paragraph [0028] of Malcolm as evidence that combining

the teachings of Meandzija and Malcolm would provide the advantage of having secure

communications during a session. Appellants assume the Examiner's Answer is

asserting that a person of ordinary skill in the art would be motivated to combine the

teachings of Meandzija and Malcolm in order to provide secure communications

during a session. However, the Examiner's Answer provides no support for this

assertion. Specifically, as is admitted in lines 14-19 on page 15 of the Examiner's

Answer, the system of Meandzija already provides secure communication and already

<sup>7</sup> KSR Int'l Co. v. Telefax Inc., 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007) (quoting In re Kahn, 441 F.3d

977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006

uses session certificates to do so. Accordingly, the Examiner's Answer does not

explain why a person of ordinary skill in the art would be motivated to combine the

teachings of Meandzija with those of Malcolm to achieve secure communications

during a session, when Meandzija already teaches provision of secure communications

during a session without the features of Malcolm.

Consequently, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer have articulated a reasoning having a rational underpinning

supporting the legal conclusion of obviousness with respect to claim 1.

C. THE EXAMINER'S ANSWER DOES NOT ACCOUNT FOR THE FAILURE TO

ESTABLISH A PRIMA FACIE CASE OF OBVIOUSNESS WITH RESPECT TO ANY OF

CLAIMS 4, 6, 7, 11 AND 12.

Claim 4

Claim 4 recites "wherein the second cryptosync is used for verifying message

integrity by at least one of the two devices". In the Appeal Brief, Appellants provided

arguments explaining why paragraph [0007] of Meandzija failed to teach these

limitations of claim 4. In response, the Examiner's Answer again references paragraph

[0007] of Meandzija and asserts that Meandzija as modified by Malcolm teaches the

above-referenced limitations of clam 4. Appellants respectfully disagree.

Specifically, the Examiner's Answer asserts the second cryptosync recited in

claim 1 is taught by a root certificate disclosed by paragraph [0145] of Malcolm.8 The

Examiner also provides a discussion on page 14 of the Examiner's Answer regarding

<sup>8</sup> Examiner's Answer at p. 14, generally.

root certificates and trees for which no citation is provided. Consequently, The

Examiner's Answer has not established that the discussion on page 14 constitutes

prior art which can be used to support a rejection of claim 14. Regardless, the

Examiner has identified nothing in Malcolm, or any other cited art, teaching the root

certificate of Malcolm being used, by at least one of two devices, to verify message

integrity.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 4 as is

required to support a rejection under §103.

Claim 6

Claim 6 recites "wherein the deriving step derives the first cryptosync as at least

a portion of the second cryptosync". On page 25 of the Appeal Brief at lines 12-22,

Appellants argued that the above-referenced limitations of claim 6 were not taught by

the mere disclosure of Malcolm regarding a certificate being derived from a root

certificate, as the Office Action asserted.

In response, lines 7-12 of page 17 of the Examiner's Answer include an

assertion that the meaning of the term "derive" is "to obtain from a source", and thus,

a first digital certificate derived from a second digital certificate must have at least a

portion of the second digital certificate. Appellants respectfully disagree.

Specifically, using the definition of derive provided by the Examiner's Answer, it

is not necessary for a first object derived from a second object to include a portion of

the second object. For example, cypher text can be derived from plain text by

inputting the plain text in an encryption algorithm. However, it is certainly not

necessary for the cypher text to include any portion of the plain text. To the contrary,

it is desirable for there to be no intelligible link between the cypher text and the plain

text from which it is derived, at least not without the aid of a decryption algorithm.

Accordingly, Appellants respectfully submit the assertion made by the Examiner's

Answer that the definition of the term 'derived' requires the derived certificate of

Malcolm to include at least a portion of the root certificate of Malcolm is false. The

definition provided by the Examiner's Answer for the term "derived" requires only that

the second certificate from which a first certificate is derived be a source, not that any

portion of the second certificate is contained in the derived first certificate.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 6 as is

required to support a rejection under §103.

Claim 7

Claim 7 recites "wherein the deriving step derives the first cryptosync as at least

a portion of the second cryptosync and a fixed bit sequence". On page 26 of the

Appeal Brief at lines 1-12, Appellants argued that the above referenced limitation of

claim 6 were not taught by the mere disclosure Malcolm regarding a certificate being

derived from a root certificate.

In response, the portion of the Examiner's Answer at page 17, line 13 to page

18, line 8 appears to reference, again, the assertion made with respect to claim 6 that

the meaning of the term derive is "to obtain from a source", and thus, a first digital

certificate derived from a second digital certificate must have at least a portion of the

second digital certificate. Appellants respectfully disagree for the same reasons

discussed above with reference to claim 6.

Further, Appellants note the discussion at lines 1-8 of page 18 of the

Examiner's Answer regarding all digital certificates derived from the root certificate to

have the same length. However, the Examiner provides no support for the assertions

made in this discussion in the cited art or any other source.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 7 as is

required to support a rejection under §103.

Claim 11

Claim 11 recites "wherein the deriving step derives a portion of the first

cryptosync as the second cryptosync". On page 26 of the Appeal Brief at lines 15-24,

Appellants argued that the above referenced limitations of claim 11 were not taught by

the mere disclosure Malcolm regarding a certificate being derived from a root

certificate, as the Office Action asserted.

In response, the Examiner's Answer provided the same arguments discussed

above with respect to claim 6. Accordingly, Appellants respectfully disagree for the

same reasons discussed above with reference to claim 6.

Further, Appellants note claim 11 requires a portion of the first cryptosync to

be the whole second cryptosync, not merely a part of the second cryptosync.

Accordingly, Appellants respectfully submit the broad, general discussion of a

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certificate being derived from a root certificate provided in paragraph [0145] of

Malcolm is clearly insufficient to teach the specific requirement that a portion of the

first cryptosync be derived as the second cryptosync.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 11 as

is required to support a rejection under §103.

Claim 12

Claim 12 recites "wherein the deriving step derives a first portion of the first

cryptosync as the second cryptosync and derives a second portion of the first

cryptosync as a fixed bit sequence". On page 27 of the Appeal Brief at lines 2-15,

Appellants argued that the above referenced limitations of claim 12 were not taught by

the mere disclosure Malcolm regarding a certificate being derived from a root

certificate, as the Office Action asserted.

In response, the Examiner's Answer provided the same arguments discussed

above with respect to claim 7. Accordingly, Appellants respectfully disagree for the

same reason discussed above with reference to claim 7.

Further, similar to claim 11, Appellants note claim 12 requires a portion of the

first cryptosync to be the second cryptosync, not merely a part of the second

cryptosync. Accordingly, Appellants respectfully submit the broad, general discussion

of a certificate being derived from a root certificate provided in paragraph [0145] of

Malcolm is clearly insufficient to teach the specific requirement that a first cryptosync

be derived as the second cryptosync.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 12 as

is required to support a rejection under §103.

D. THE EXAMINER'S ANSWER DOES NOT ACCOUNT FOR THE FAILURE TO

ESTABLISH PRIMA FACIE CASE OF OBVIOUSNESS WITH RESPECT TO EITHER

OF CLAIMS 2 AND 3.

Claim 2

Appellants presented arguments in the Appeal Brief explaining why the

combination of Meandzija, Malcolm and Burch fails to render the limitations of claim 2

obvious.9 In response, the Examiner's Answer asserts that Burch is being used to

show that it is well known in the art to use digital certificates to encrypt messages, not

to teach a second cryptosync or a digital certificate. 10

Appellants note paragraphs [0004] and [0023] discuss the use of public key

certificates for encryption. However, Appellants respectfully submit, even if, for the

sake of argument, paragraphs [0004] and [0023] of Burch can be properly interpreted

as teaching the use of a public key certificate, itself, to encrypt a message, as

opposed to the well-known practice of using the digitally signed public key within the

certificate to encrypt the message, which Appellants do not admit, Appellants

respectfully submit the Examiner's Answer has provided no support for the assertion

that the digital certificates of Meandzija of Malcolm are capable of being used to

<sup>9</sup> Appeal Brief at p. 28, l. 12 – p. 30, l. 7.

<sup>10</sup> Examiner's Answer at p. 18, l. 8 – p. 19, l. 4.

encrypt messages. Specifically, Malcolm discusses including public keys in digital

certificates and encrypting messages using the public keys<sup>11</sup>. Malcolm does not

appear to teach encrypting messages using digital certificates, themselves. Neither

does Meandzija. Accordingly, the systems of Malcolm and Meandzija would have to be

modified to meet the limitations of claim 2. However, the Examiner has provided no

arguments supporting the position that it would be obvious to modify the systems of

Meandzija and Malcolm such that the digital certificates of Meandzija and Malcolm,

themselves, are used to encrypt messages.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 2 as is

required to support a rejection under §103.

Claim 3

Claim 3 recites "wherein the second cryptosync is used for verifying message

integrity by at least one of the two devices". In responding to the arguments in the

Appeal Brief regarding claim 3, the Examiner's Answer uses the same rationale used

to reject claim 4 discussed above in section C of the instant Reply Brief. Accordingly,

for the same reasons discussed above with respect to claim 4. Appellants respectfully

submit the Office Action does not identify how any of the applied art, alone or in

combination, teaches or otherwise renders obvious each of the limitations of claim 3

as is required to support a rejection under §103.

<sup>11</sup> Malcolm at para. [0145] – [0147].

E. THE EXAMINER'S ANSWER DOES NOT ACCOUNT FOR THE FAILURE TO

ESTABLISH PRIMA FACIE CASE OF OBVIOUSNESS WITH RESPECT TO CLAIM 5.

Appellants presented arguments in the Appeal Brief explaining why the

combination of Meandzija, Malcolm and Somin fails to render the limitations of claim

5 obvious.<sup>12</sup> In response, the Examiner's Answer maintains the position that the

creation of a new root certificate for a new group as taught by Somin teaches changing

a second cryptosync between communication sessions.<sup>13</sup> Appellants respectfully

disagree.

Appellants respectfully submit the Examiner has not responded to Appellants

arguments regarding the creation of a new root certificate being different from the

changing of an existing root certificate. Accordingly, even if it is assumed that the root

certificate of Somin constitutes a cryptosync, which Appellants specifically refute in

section A of the instant Reply Brief, Somin still fails to teach a cryptosync that changes

between communications sessions as claim 5 recites.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 5 as is

required to support a rejection under §103.

<sup>12</sup> Appeal Brief at p. 31, l. 12 – p. 33, l. 8.

<sup>13</sup> Examiner's Answer at p. 18, l. 8 – p. 19, l. 4.

F. THE EXAMINER'S ANSWER DOES NOT ACCOUNT FOR THE FAILURE TO

ESTABLISH A PRIMA FACIE CASE OF OBVIOUSNESS WITH RESPECT TO CLAIMS

8-10 AND 13-23.

Claim 8

Appellants presented arguments in the Appeal Brief explaining why the

combination of Meandzija, Malcolm and Rezaiifar presented in the Office Action failed

to render the limitations of claim 8 obvious.<sup>14</sup> Specifically, Appellants argued that the

Examiner did not explain what in Rezaiifar was being interpreted as corresponding to

the recited second cryptosync.

In response, the Examiner's Answer points to the same section of Rezaiifar

identified in the Office Action, column 4, lines 46-62.15 However, the Examiner's

Answer still fails to identify where Rezaiifar teaches the second cryptosync recited by

claim 8.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 5 as is

required to support a rejection under §103.

Claims 9, 10 and 13

Claim 9 recites "wherein the fixed bit sequence is a string of 0s". In the Appeal

Brief, Appellants noted that with respect to this limitation, the Office Action referenced

an EID value discussed in column 9, lines 11-22 of Rezaiifar. Appellants further noted

<sup>14</sup> Appeal Brief at p. 34, l. 4 – p. 35, l. 6.

<sup>15</sup> Examiner's Answer at p. 20, l. 1 - 6.

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that the EID bit 807 discussed in the portion of Rezaiifar referenced by the Office

Action is a single bit, not a string of 0s; and that the EID bit 807 is included in a frame

800 which is not taught by Rezaiifar as being a cryptosync as claim 9 requires. 16

In response, on page 21 of the Examiner's Answer it is asserted that the

limitation regarding the string of 0s recited in claim 9 "is not a positive step and still a

step the system would be capable of doing without needing to add a positive step".17

Appellants respectfully submit the meaning of the statement quoted above is unclear.

Specifically, it appears the Examiner's Answer is asserting that the limitation of claim

9 regarding the string of 0s suffers from some deficiency which permits the limitation

to be ignored when considering the patentability of claim 9. However, the Examiner's

Answer cites no basis in law for this assertion. Accordingly, Appellants respectfully

submit the Examiner's Answer must establish that all the limitations of claim 9 are

taught or otherwise rendered obvious by the cited art. This has not been done with

respect to the limitation regarding the string of 0s. For at least this reason, Appellants

respectfully submit a prima facie case of obviousness has not been established with

respect to claim 9.

Further, Appellants note it appears Appellants' arguments regarding the frame

800, in which the EID bit 807 cited by the Examiner is included, not being a

cryptosync were not addressed in the Examiner's Answer. For at least this additional

reason, Appellants respectfully submit a prima facie case of obviousness has not been

established with respect to claim 9.

<sup>16</sup> Appeal Brief at p. 36, l. 10-20.

<sup>17</sup> Examiner's Answer at p. 21, 1. 10-12.

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Additionally, the Examiner's Answer maintains the position that claims 10 and

13, each of which also require a string of 0s, are obvious for the same reasons

discussed above with respect to claim 9. Accordingly, for at least the same reasons

discussed above with respect to claim 9, Appellants respectfully submit a prima facie

case of obviousness has not been established with respect to either of claims 10 and

13.

<u>Claims 16 and 17</u>

Claim 16 recites "wherein the deriving step is performed at a base station" and

claim 17 recites "wherein the deriving step is performed at a mobile station".

Appellants argued on page 38 the Appeal Brief18 that column 3, lines 36-45 of

Rezaiifar, which were referenced by the Office Action as teaching the above-referenced

limitations of claims 16 and 17, discussed subscriber units 12 and a base station 14,

but did not discuss a location where any deriving is performed.

The Examiner's Answer responds to these arguments by again referencing the

same section of Rezaiifar without identifying where Rezaiifar specifically teaches

performing a deriving step in a mobile station or a base station.<sup>19</sup> Appellants note a

certificate authority taught by paragraph [0145] of Malcolm is also mentioned in the

Examiner's Answer. However, the Examiner's Answer does not identify where any of

the cited art teaches the certificate authority being located in a mobile station or a

base station.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

<sup>18</sup> Appeal Brief at p. 38, l. 1-16.

<sup>19</sup> Examiner's Answer at p. 21, l. 13 – p. 22, l. 2.

combination, teach or otherwise render obvious each of the limitations of either of

claims 16 and 17 as is required to support a rejection under §103.

Claim 18

Claim 18 recites "encrypting a frame of information to send from the at least

one of the two devices using the first cryptosync". Appellants argued in the Appeal

Brief that though column 2, lines 19-23 of Rezaiifar, which were referenced by the

Office Action as teaching the above-referenced limitations of claim 18, discuss

encrypting traffic, the Office Action did not identify what in Rezaiifar was being

interpreted as teaching the recited first cryptosync. 20

The Examiner's Answer references the same section of Rezaiifar and likewise

fails to identify what is being interpreted as corresponding to the first cryptosync.21

For at least this reason, Appellants respectfully submit. For at least this reason,

Appellants respectfully submit a prima facie case of obviousness has not been

established with respect to claim 18.

Further, for at least the reasons discussed above with reference to claim 2 in

section D of the instant Reply Brief, Appellants respectfully submit the record is void

of any support for the assertion that the digital certificates of Meandzija themselves,

which the Examiner's Answer references as teaching the recited first cryptosyncs, and

not the public keys within the digital certificates, are capable of being used to encrypt

a message as is required of the first cryptosync recited in claim 18.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

<sup>20</sup> Appeal Brief at p. 38, l. 19 - p. 39, l. 7.

<sup>21</sup> Examiner's Answer at p. 22, l. 3-13.

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combination, teach or otherwise render obvious each of the limitations of claim 18 as

is required to support a rejection under §103.

Claims 20 and 23

In the Appeal Brief, Appellants argued that the Office Action did not state how

the teachings of Meandzija, Malcolm and Rezaiifar were being modified or combined to

teach incrementing a first cryptosync value after an encrypting step as claim 20

recites, or incrementing a first cryptosync value after a decrypting step as claim 23

recites.22

In response, page 22, lines 14-19 of the Examiner's Answer states that Rezaiifar

clearly teaches the above-referenced limitations. Appellants respectfully disagree.

Specifically, the Examiner's Answer asserts that the first cryptosync is taught by a

session certificate. However, the Examiner's Answer cites nothing in any of the

applied art teaching incrementing a session certificate. Further, neither the Office

Action nor the Examiner's Answer explain how one would combine the teachings of

Rezaiifar with those of Meandzija and Malcolm such that a session certificate is

incremented after an encryption step or a decryption step as claims 20 and 23 require

of the recited first cryptosync. Further, still, neither the Examiner's Answer nor the

Office Action provides a reasoning having a rational underpinning supporting the legal

conclusion that it would be obvious to modify the session certificate of Meandzija such

that it can be incremented as claims 20 and 23 require of the recited first cryptosync.

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

<sup>22</sup> Appeal Brief at p. 39, 1. 9-22.

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combination, teach or otherwise render obvious each of the limitations of either of

claims 20 and 23 as is required to support a rejection under §103.

Claim 21

Claim 21 recites "decrypting a frame of information received at the at least one

of the two devices using the first cryptosync". On page 40 of the Appeal Brief at lines

2-18, Appellants argued that the portion of Rezaiifar referenced by the Office Action as

teaching the above-referenced limitations of claim 21, column 5, lines 56-67, included

no discussion of cryptosyncs. Further, Appellants argued that the Office Action did

not explain how Meandzija, Malcolm and Rezaiifar would be combined to teach the

limitations of claim 21.

The Examiner's Answer only references the same portion of Rezaiifar referenced

by the Office Action, and does not address any of the arguments above.<sup>23</sup>

Accordingly, Appellants respectfully submit neither the Office Action nor the

Examiner's Answer has established that any of the applied art, alone or in

combination, teach or otherwise render obvious each of the limitations of claim 21 is

required to support a rejection under §103.

<sup>23</sup> Examiner's Answer at p. 23, l. 1-5.

G. THE EXAMINER'S ANSWER DOES NOT ACCOUNT FOR THE FAILURE TO

ESTABLISH PRIMA FACIE CASE OF OBVIOUSNESS WITH RESPECT TO CLAIM

24.

Claim 24 recites "deriving, at a network element, a value of a first cryptosync

for the communication session based on a value of a second cryptosync used to

encrypt further communication between the two devices, the first cryptosync having a

life limited to the communication session, the communication session being defined as

a period of time a channel for communication exists between the two communication

devices, the second cryptosync having a life extending over multiple communication

sessions".

In responding to the arguments in the Appeal Brief regarding claim 24, the

Examiner's Answer uses the same rationale used to reject claim 1 discussed above in

sections A and B of the instant Reply Brief. Accordingly, for the same reasons

discussed above with respect to claim 1, Appellants respectfully submit the Office

Action does not identify how any of the applied art, alone or in combination, teaches or

otherwise renders obvious each of the limitations of claim 24 as is required to support

a rejection under §103.

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IV. CONCLUSION

For at least the reasons above, a prima facie case of obviousness cannot be

established with regard to claims 1-24. Accordingly, Appellants respectfully request

the Board to reverse the Examiner's rejection.

If the USPTO believes that personal communication will further the prosecution

of this application, the Office is invited to contact John H. Ambrose Jr., Reg. No.

64,371, at the telephone number below.

The Commissioner is authorized in this, concurrent, and future replies, to

charge payment or credit any overpayment to Deposit Account No. 08-0750 for any

additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly,

extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By:

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